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ABSTRACT

As part of an on-going evaluation study of the bilingual program at St. Joseph Elementary School in Quebec, Canada, this document reports on its operation during the 1980-81 school year. During this year, pupils in grade one followed a modified social studies program through French, while pupils in kindergarten followed a revised edition of the bilingual kindergarten program. Progress of the two programs was monitored informally through class visits and periodic meetings with teachers, administrators, and parent representatives. Verbal and written comments on objectives, activities, and material were solicited from each teacher as well as from two outside consultants. The focus of the evaluation, however, was on students' performance. A major portion of the report is devoted to a detailed description of testing instruments, and to the analysis and discussion of test results. Both standardaized and non-standardized tests were used, and their results are documented in the "Tables" section at the end of the report. Questionnaires and forms addressed to teachers and parents are appended. (MES)

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SECOND PROGRESS REPORT

EVALUATION OF THE BILINGUAL KINDERGARTEN PROGRAM

ST. JOSEPH ELEMENTARY SCHOOL

TOWN OF MOUNT ROYAL

submitted by

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to

THE ST. CROIX SCHOOL COMMISSION

August, 1981

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FACULTY OF EDUCATION

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MONTREAL, CANADA

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1. INTRODUCTION

This is the second progress report[1] on the evaluation of the Bilingual Kindergarten Project[2] first implemented in 1979-80 in St. Joseph Elementary School, Town of Mount Royal. The project was initiated at the request of the parents, has been funded, in part, by the Quebec Ministry of Education, has been developed and evaluated by a team from McGill University and administered, coordinated and supervised by persons associated with the school and school commission (see Appendix A for distribution of responsibilities).

During the 1980-1981 scholastic year, the first cohort of pupils, in grade one, has followed a modified Social Studies program[3] through French; the second cohort, in kindergarten, has followed the revised edition[4] of the Bilingual Kindergarten Program.

There are two components to the current evaluation - the evaluation of the programs themselves and the evaluation of the performance of the students following these programs. Although the focus of the evaluation is on the latter, in assessing pupil achievement one indirectly assesses the validity of program objectives.

The progress of the two programs (the Bilingual Kindergarten Program and the follow-up program in grade one) was monitored informally during the year through classroom visits and periodic meetings with the teachers, administrators and parent

representatives. Verbal and written comments on objectives, activities and materials were solicited from each teacher as well as from two external consultants.

The progress of the pupils was assessed by means of classroom observations and by individual and group tests and rating scales. Some of these instruments were administered to control classes in neighboring schools - a kindergarten reception class, a regular French kindergarten, a regular English kindergarten and a French grade one class.

Prior to testing a parental consent form and a letter (Appendix B) explaining the purpose of the study and the evaluation procedures were forwarded to the parents of the children within each class. Only the children of parents who returned an affirmative consent form were tested.

The remainder of the report is presented in three parts: (1) a description of evaluation procedures which consists of four sections - a description of the questionnaires and testing instruments; the testing schedule and administration procedures; a description of the groups of subjects and the statistical treatment of data; (2) the presentation and discussion of results; (3) some concluding remarks.

2. METHODOLOGY

2.1 Instruments

The following questionnaires, forms and tests, both standardized and non-standardized, were administered during the current evaluation.

2.1.1 Questionnaires

- A language background questionnaire (Appendix C) completed with the help of the school principal and used for the selection of pupils for the study.
- Forms distributed to the two Bilingual Kindergarten teachers (English and French) and to the two Grade One teachers (classroom teacher and specialist) requesting a ranking of pupils on a number of specific classroom variables.
- A questionnaire (Appendix D) distributed to the teacher of the French component of the program at the kindergarten level and to the Social Studies teacher in grade one seeking comments regarding various aspects of the programs - objectives, topics, guidelines, modules, teaching materials, etcetera.
- Requests (in the form of open-ended questions) for a general review of the Bilingual Kindergarten Program submitted to two specialists - one in the area of kindergarten (Ministry of Education) and the other in the area of language development (René Descartes

University, Paris V).

- A questionnaire (Appendix E), distributed to the parents of children who participated in the Bilingual Kindergarten Program, seeking their reactions to the program and its implementation.

2.1.2 Tests

2.1.2.1 Standardized Tests

- Raven's Coloured Progressive Matrices[6]

Appropriate for use with young children, this test consists of thirty-six problems in which the examinee is asked to select from among four to six figures the one which correctly completes one or a series of abstract figures. The Raven was administered to all the kindergarten pupils involved in the study. As a nonverbal test, it was used to determine the level of reasoning of the children in each of the four classes and to establish some measure of equivalency among pupils between these four classes.

- Peabody Picture Vocabulary Test[7]

This test provides an estimate of the child's verbal ability through the measurement of his hearing vocabulary. It consists of one-hundred and fifty plates each containing four drawings. For each set of four drawings, the examinee must indicate the picture which corresponds best to the word

presented by the examiner. The raw score is based on the number of correct responses prior to making six errors on eight consecutive items. Norms provided in the manual are based on the results of testing children between the ages of two and a half and eighteen years.

The French version of this test consists of a translation adopted for use with Quebec francophone children.[8]

- French Comprehension Tests (OISE) Primer and Grade One[9]

These group tests were designed by the Ontario Institute for Studies in Education to measure the French comprehension skills of English-speaking pupils in kindergarten or grade one immersion programs.

They are both made up of three parts. The first one consists of lexical items and short sentences involving a number of syntactic and grammatical constructions. Part two requires the child to identify the picture that represents the answer to a question. Part three measures the child's comprehension of extended texts in French. It consists of two short stories each of which is followed by a number of questions based on the content. For each level the items are distributed as follows:

	Kindergarten	Grade One
Part 1	25	22
Part 2	10	9
Part 3	10	14

For each item the child is required to select from four pictured alternatives the one that best corresponds to the verbal instructions given by the examiner or tape-recording. Examples precede each part of the test. Conversion tables provide percentile ranks.

- The Bilingual Syntax Measure (BSM-E)[10]

This test is most appropriate for children between the ages of four and nine. It was designed to assess syntactic competence in Spanish and in English by eliciting natural speech in response to questions based on cartoon-like pictures. An analysis of responses yields a numerical index as well as a qualitative description of the child's syntax. There are five levels of oral language proficiency from level one (no, or little comprehension or speaking ability) to level five (proficiency at the level of native speakers of the language). In this study only the English part of the BSM was administered.

The French version of this test - l'Echelle de Syntaxe bilingue (E.S.B.) was developed by Paul Pimsleur and was used by his collaborator at the University of Paris III, Elisabeth Bautier-Castaing, in her research on the acquisition of French.[11] The E.S.B. makes use of the same cartoons as the BSM, consists of thirty-four questions and deals with fifty-six syntactic structures. Unlike the BSM, the ESB does not, to date, provide a numerical index of proficiency in French syntax.

In view of the restricted number of syntactic structures emitted by a group of pupils with a limited knowledge of the

French language, and in line with specific objectives for evaluation, an adaptation of the Bautier -Castaing rating procedure was developed and a simplified analysis was undertaken for the current study. Regrouping certain structures and including morphosyntactic features, the analysis is based on the following ten parameters:

- grammatically acceptable sentences
- gender
- verb to be; to have
- regular and irregular verbs (present tense forms)
- regular and irregular verbs (other tense forms)
- complementary infinitives
- adjectives (position and agreement)
- contraction
- object personal pronouns

Results are expressed as number of correct and incorrect uses of each of the above cases.

2.1.2.2. Non-standardized Tests

- Oral Language Measure (OLM)

This oral language test consists of an interview of about ten minutes dealing with the events represented in a series of drawings. At the kindergarten level, the theme of the series is the celebration of a family birthday party; at grade one, the topic is a family picnic. This exercise in oral expression is partly structured and partly free. It

involves the description of drawings, the formulation of possible conversations among characters depicted in these drawings, relating the total story and the explanation of a specific event depicted in one of the scenes.

At the kindergarten level, pupils in the Bilingual kindergarten and in the Reception kindergarten took the English version in March and the French version in May. The test was administered in May to English kindergarten pupils. For the French version a scale of 0 to 5 was used for each of the following parameters: comprehension of the event depicted in the series, lexical development and grammatical, discursive and enunciative proficiency for the total production; a scale of 0 to 3 was used to rate capacity for personal expression in explaining perception of an event. In addition a word count was made of English and French words based on a written transcription of taped responses. In line with a more restricted assessment of English language skills and using the same scale, the quality of communication on the English version entails ratings of lexical development and general language proficiency (subsuming grammatical, discursive and enunciative proficiency).

At the first-grade level, the test was administered in French to those pursuing the follow-up program in integrated Social Studies. The ratings and parameters are similar to those used at the kindergarten level.

- Content Examinations

- Kindergarten: This individual, oral test is prepared with a view to assessing the extent of acquisition of ideas

which are articulated in the intermediate objectives of the program and conveyed through the activities provided in the modules.[12] The test consists of twenty-two questions based primarily on the modules used after December. Approximately fifty percent of the questions refer the children to a series of drawings. The children are asked to name, enumerate, identify items and to point out differences. They are also asked some open-ended questions requiring them to provide certain characteristics and to give facts and explanations. The examiners are instructed to elicit as much information as possible from the children. If necessary they are to repeat questions in English. Since an acceptable response is not based on choice or quality of language, appropriate responses volunteered in English are given credit. This test was administered to pupils in the Bilingual Kindergarten.

- Grade One: The major purpose of this individually administered oral test is to assess the extent to which the content objectives of the integrated Social Science and second language program are acquired by the pupils. The test takes approximately thirty minutes to administer and consists of questions on the notions of space, time and society articulated in the intermediate objectives. The examinees are expected to point to, name and situate in time and space, certain elements and phenomena depicted in the drawings. They are expected to identify and explain certain relationships and to draw on their own personal experiences. The acceptability of a response

does not depend on the quality of expression. The maximum possible score is eighty-nine.

- Verbal Interaction Analysis

This technique is an adaptation of that developed for the classroom by Flanders.[13] It is an observational tool which focuses the observer's attention on the frequency and direction of verbal exchanges between pupil and teacher and pupil and pupil. Verbal events (pupil statements, questions, commands, exclamations) through which the child attempts to communicate his thoughts are recorded on a grid (Appendix F). In view of the fact that only one child is observed at a time, verbal behavior and any paralinguistic behavior can be reported in detail. An observer familiar with the classroom routine and trained in the use of the grid, stays close to a child for a period of ten minutes, recording utterances, in as much detail as possible then moves on to a second child (details of 1980-81 procedure are elaborated in section on Administration Procedures).

A brief study was conducted at the beginning of the year by two of the trained observers and by the authors of this report to determine the instrument's reliability.[14]

2.2 Testing Schedule and Administration Procedures

Tables 1 and 2 present, for kindergarten and grade one respectively, the list of tests and questionnaires, the groups to which these instruments were administered and approximate testing dates.

All tests were administered by three fluently bilingual graduate students trained in the administration of each test. To ensure uniformity of administration, the same examiner administered any one test to all pupils taking that test. Prior to testing, the examinees made every effort to develop rapport with the children so that testing could be perceived as a positive, nonthreatening experience. Despite the inconvenience incurred by periodic disruptions of daily routine, the examiners were well received by the principals, teachers and pupils within the schools.

Group tests were administered to small groups of three or four pupils by a team of two assistants. Both individual and group testing sessions were held in a quiet classroom assigned for the duration of the testing.

For the Verbal Interaction Analysis, observations were conducted by three trained observers in kindergarten during the regular activities of the morning (English) session and of the afternoon (French) session and, in grade one, during the Social Studies periods. In kindergarten, eight pupils were selected as subjects. Each was observed for a total of forty minutes in four ten-minute nonsecutive blocks of time. In grade one each of the eight pupils selected were observed during two nonconsecutive ten minute periods for a total of twenty minutes per child. A sample observation schedule is reproduced in table 3.

2.3 Subjects

- Kindergarten: Initially an attempt was made to equate four groups (Bilingual Kindergarten (B.K.), English Kindergarten (E.K.), Reception Kindergarten (R.K.) and French Kindergarten (F.K.)) on socioeconomic status and three of the groups (B.K., E.K. and R.K.) on linguistic background. Some ambiguous information on linguistic background and socioeconomic status made matching on these variables more difficult than anticipated. The departure of some pupils, the removal of a few atypical cases and incomplete testing of some children due to illness reduced the original N of 16 per group to that reproduced in the tables summarizing results.

- Grade One: The departure of six students from the school has reduced the original kindergarten group which numbered fifteen. The arrival of four new students in grade one resulted in a class of thirteen pupils, all of whom were included in the testing. For the group of new arrivals results are discussed separately, where appropriate. The pupils tested in the French kindergarten in 1979-80 were again used as subjects in the current grade one testing.

2.4 Treatment of Data

An analysis of covariance procedure using Raven as covariate is used for data on which cross-group comparisons are made. An appropriate multiple comparisons test is used to test any differences between means.

Other analyses include a pre-post test difference on results of the content examination and rank order correlations using selected subscores of tests at the kindergarten level.

Results of the parents questionnaire and the verbal interaction analyses are reported as number of responses per category.

Where linguistic subgroups are compared results are reported as trends, and global, nonstatistical distinctions are made.

3. PRESENTATION AND DISCUSSION OF RESULTS

The results of the Kindergarten and Grade One assessment of program and of pupil achievement are presented and discussed below.

3.1 Kindergarten

3.1.1 Assessment of Bilingual Kindergarten Program

Various aspects of the program were evaluated by experts in the field, by the teacher and by the parents of participating children. A summary of their comments is presented below.

- By specialists:

The revised version of the Bilingual Kindergarten Program as well as some of the modules were examined by two specialists in the teaching of non-maternal languages - one a pedagogical counsellor for reception classes (M.E.Q.) the other, a linguist involved in research on bilingual language development in children.

On the one hand, the Bilingual Kindergarten Program was considered to correspond, in part, to that of reception classes in Quebec and, in part, to bilingual schools in France. On the other hand, the Program is distinctive and innovative. Unlike that of the reception kindergartens it is additive and unlike that of the bilingual schools in France, it operates within the public system while attempting to meet the needs of a specific community.

Changes based on the following specific remarks will be incorporated by the authors in the second revision of the program. Since the success of the program depends largely on the teacher having a clear understanding of its goals, these must be unambiguously and completely stated according to the comments received. The relations among the general, terminal and specific objectives do not appear to be sufficiently clear. In addition, the lists of vocabulary and expressions provided may lead the teacher to emphasize the learning of word lists to the detriment of the development of communicative skills. It is suggested that language content be formulated in terms of communicative objectives which would be centered on functional categories. The content of the program was judged to be unduly prescriptive and constraining leaving little room for adaptation by the teacher.

In line with these observations a special effort will be made to ensure that the teachers have an unambiguous understanding of the program particularly the section of the pedagogical guide which advocates the adaptation of the program to the interests of the pupils and that which emphasizes the importance of developing not only vocabulary but personal expression. In addition they will be encouraged to make a special attempt to intensify verbal interaction between teacher and pupil and among pupils.

- By the teacher of the French component of the program:

The questionnaire (Appendix D) and the pupil-rating scale were not returned in time for results to be included in the current report. The authors hope to provide a summary of comments and suggestions in the appendix of the 1981-1982 report.

- By parents:

Of the fifteen questionnaires distributed, fourteen were completed and returned. Numbers of responses to each alternative are presented in table 4. Refer to Appendix E for complete questionnaire.

For question 1 conclusions drawn are somewhat tenuous since a few parents responded to one or two of the statements rather than to all four. The majority of those responding (approximately two-thirds) would select English over French instruction for their children while about one third seemed to be drawn by the availability of instruction in French. From the combination of responses to this question provided within each questionnaire, it would seem that language of instruction (English over French and English-French combination) predominates over length of instruction (full versus half day). In retrospect perhaps a ranking of a combination of possible options would have been preferable to a "yes" and "no" type question.

With respect to questions 2 and 3, the majority of parents (9 of 14; 9 of 14 respectively) indicate that their child both enjoyed and benefited from the program very much. Only one indicated that little was gained. Most respondents (8 of 14) indicate that they prefer a program as structured as that experienced by their children whereas five of the respondents strongly (supported by comments) favor a more structured approach. Seven of fourteen responses reveal that parents believed that their child had learned about as much French as anticipated whereas four indicate that more French than expected was learned. The majority of parents (9 of 14) indicate that their children had manifested understanding of French on a number of occasions. Of these parents a maximum of three may have selected a "question not appropriate" alternative had it been provided (see question 7). On question 7, five respondents reveal attempts by children to speak French outside of class.

Of the nine parents who responded to question 8 (open-ended question on beneficial practices and activities) most mention the field trips, practice of oral conversation, learning of stories and songs in French. Of the six responding to question 9(open-ended question on suggested changes) all express a desire for more structure (number games, language drill) and fewer free activities. All fourteen respondents indicate that they would recommend the program to others. A few reiterate suggestions for a more structured classroom

experience. One expressed the desire for the continuation of the program through grade one.

3.1.2 Assessment of Pupil Performance

The results of tests presented in tables 5 through 11 are discussed below.

- Raven's Coloured Progressive Matrices

The difference between pairs of means for the Bilingual Kindergarten (B.K.), French Kindergarten (F.K.), English Kindergarten (E.K.) and Reception Kindergarten (R.K.) is not significant. The use of the Raven as the covariate resulted in negligible adjustments to obtained means on the dependent variables.

- Peabody Picture Vocabulary Test

The results of B.K. pupils on the Peabody corresponded to those obtained by pupils in the E.K. at the end of the scholastic year. The difference although not significant favored the B.K.

For the French version of the Peabody, differences were significant beyond .001 and in the expected direction - F.K. greater than R.K. greater than B.K.

- French Comprehension Tests (OISE)

For the total score and for each of the subtest scores, the difference between R.K. and B.K. is significant well beyond .01 and favors R.K.

Comparing the B.K. results to the norms for immersion kindergartens in Ontario provided in the text manual, the mean raw score and standard deviation for BK (27.07; 8.41) differ very little from the mean raw score and standard deviation of the normative sample (28.36; 8.65).

- Bilingual Syntax Measure (BSM)

The three groups (BK, RK and EK) differ little in level of English oral language proficiency. As far as skills in oral English, these groups are equivalent. The slightly lower index in the BK may reflect the results of a few students for whom English is a second language.

- L'Echelle de syntaxe bilingue (ESB)

Four of the ten parameters analysed are omitted from the report. The verb to have and non-auxiliary verbs used in tenses other than the present were used not at all or infrequently by pupils in the three comparison groups (BK, FK, RK). For example, the verb to have was used only a total of thirty-one times by the forty pupils in these groups. The complimentary infinitive and the contraction of the article were used slightly more frequently but the large within-group variability precluded a meaningful comparison between groups.

For the remaining parameters (see table 6) analyses reveal certain differences between the three groups tested. On a possible total of thirty-four grammatically acceptable responses, the difference between group means (8.99; 25.04;

14.91) is significant beyond the .01 level. It is the sole parameter which manifests a significant difference between the mean of FK and that of RK.

Results on the five remaining parameters are viewed from two different aspects in language development - quantitative (the total number of occurences of the morphosyntactic features studied) and qualitative (the percentage of acceptable uses). With regard to the number of uses of the present of non-auxiliary verbs and the number of qualifying adjectives, the difference between the means of BK and those of RK is statistically significant at the .01 level and between those of BK and FK at the .05 level. As regards gender, the verb to be and object personal pronouns, there is no significant difference between obtained means for the three groups.

From the point of view of acceptability, the results reveal the anticipated superiority of the FK group where percentages of over 85 are indicated. It may be noted that among the linguistic elements analysed it is gender which is best mastered (correct beyond 80%) by pupils in the three groups. Such results augur well for the BK pupils whose learning of French is a function of contact with the language in natural conversation rather than the result of structured language learning. Generally English-speaking learners of French consider gender to be one of the major stumbling blocks in learning the language.

Even if the comparison of percentages is not common practice, it is interesting to note that, with the exception of the results for non-auxiliary verbs, the range of differences between the percentages of BK and RK (3-12) is less than that between FK and RK (10-36). This observation reveals that in the correct use of gender, of the verb to be, qualifying adjectives and the object personal pronouns BK is closer to RK than is RK to FK. As regards non-auxiliary verbs, both quantitative and qualitative results tend to show that BK pupils lag somewhat behind the other two groups which, on this feature, achieve almost identical results.

- Oral Language Measure (OLM)

- French version: Although the results of BK tend to be lower than the other two groups (FK and RK) on the various aspects of language measured, with one exception - lexical quantity, there are no significant differences between groups. On the lexical parameter the mean for FK and for RK is significantly greater (.05) than that of BK. In addition, in recounting the story, the BK pupils resort to English more frequently than do those in RK.

- English version: Although the results of BK are higher, there is no significant difference between pairs of means for BK, RK and EK.

It is interesting to note that the mean total word score produced by BK pupils (53.13) on the English version corresponds to that obtained by FK (54.07) and RK (59.56) on the French

version. Similarly the mean total word score for BK (29.80) on the French version corresponds to that obtained by RK (32.80) and EK (33.75) on the English version. Although the design of the study, within group variability and the number of variables (both language and experiential) cannot permit a clear statement on these relationships, it would seem that pupils in BK maintain a high English language production level as they acquire their French vocabulary.

- Content Examination:

The only differences which are significant in this analysis (table 7) involve the number of questions posed in English by the examiners and the number of responses in English provided by the examinees. In both cases there is a significant difference (beyond .01) between pre and post test results. By the end of the year the pupils in the Bilingual kindergarten required fewer interventions in English and provided fewer responses in English.

Because there is little difference in total score from pre to posttest it may be necessary to pursue wrong answers by questioning in English in order to ensure that incorrect answers are due to lack of knowledge rather than lack of comprehension.

- Verbal Interaction Analysis

Observations of verbal interactions for the Bilingual Kindergarten are summarized in tables 8 through 11. The first observation session which took place during the first

half of the scholastic year is designated as session 1; the second session, at the end of the scholastic year, is designated as session 2.

Tables 8 and 9 contain breakdowns of verbal events. A "verbal event" refers to a pupil utterance (statement, question, command, exclamation) through which he attempts to communicate his thoughts. Proper names, repetitions of words or phrases, words unspecified as to language are not included in the corpus. In the context of social interactions these utterances can be viewed as "exchanges" (tables 10 and 11). The label "English dominant" refers to four pupils who were identified, through language background information and interviews, as being strong in English and weak in French. The label "bilingual" refers to the four pupils who were fluent (but not necessarily balanced) in both English and French.

Inspection of level 2 in table 8 and table 9 reveals that the total number of verbal events for the two sessions in the English kindergarten (187) corresponds exactly to the total number of verbal events in the French sessions. Level 4 of these tables distinguishes verbal breakdown by language. Only English is spoken during the morning kindergarten session and English predominates during the afternoon session Five of the 26 utterances (19%) toward the French teacher (see breakdown by T, level 5, table 8) are in English during the first session whereas in the second session only 1 of the 40 utterances (2.5%) toward the French teacher (see level 5,

table 9) is in English. Pupil-to-pupil conversations in French are infrequent in both sessions - two in session 1 and three in session 2 (all level 5 in tables 8 and 9).

The breakdown of verbal exchanges as directed toward teacher and toward classmates are presented in tables 10 and 11. Inspection of level 2 in each table reveals that there are approximately three times as many exchanges among pupils as exchanges between teacher and pupil. Most of the teacher-pupil interactions (31 out of a possible 39 in session one; 48 out of a possible 60 in session two) are reactions to teacher-initiated questions (see breakdown by R, level 5, tables 10 and 11). More questions are directed to the Bilingual pupils than to the English dominants (15:7, session 1; 23:13, session 2). Pupil-pupil exchanges are dominated by the English dominant group both in the first session (62:46) and in the second session (101:66). Although there is a pronounced increase (147 to 227) from first to second session one cannot attribute it to an increase in willingness to communicate over the year. This notable difference may be due simply to the nature of the sessions during which the children were observed.

Although the time sampling for this observation study is not extensive it is likely to reflect, at least to some extent, the general nature of the classroom interaction. As noted above, responses to the French teacher are predominantly in French and almost all pupil-pupil exchanges are in English with no significant changes in verbal behavior from the first

to second session. Although the teacher speaks French in class and seeks to elicit French responses from pupils, attempts to speak French are limited largely to this type of interaction.

3.2 Grade One

3.2.1 Assessment of Integrated Social Studies Program by French Teacher

As was the case for kindergarten the return of the completed questionnaire and rating scale has been delayed. Results will be summarized in the 1981-1982 report.

3.2.2 Assessment of Pupil Performance

The results of the language tests and the content knowledge test in Social Studies are summarized in table 12. There are two types of comparisons. A "t" test procedure is used in comparing the grade one experimental group to a group following a regular French grade one program, on the content examination. Results on the French tests of comprehension and expression are subjected to a within-group comparison where the experimental group is sub-divided according to certain language-experience characteristics:

1 - (N=4) new arrivals to the first grade who have not followed the Bilingual Kindergarten Program;

2 - (N=4) anglophone pupils who, in line with the previous analysis at the kindergarten level may be considered as strongly English-dominant;

3 - (N=5) bilingual pupils who, in line with the analysis at the kindergarten level may be considered as bilingual.

The small N's precluded any meaningful statistical analysis between obtained means. The range, presented between brackets following the mean in table 12, provides some idea of sub-group variability.

- Age as of September 1980

The mean age in months for the pupils in the French grade one (77.36) is very close to that of the English grade one (77.00). In the breakdown by subgroup, the anglophone subgroup (74:25) is an average of approximately three months younger than the other subgroups.

- Peabody Picture Vocabulary Test (English version)

The mean of the anglophone subgroup (57.77) is superior to that of the other subgroups (56.00; 48.80); the spread of scores is approximately the same. The anglophone group maintains a satisfactory standing on vocabulary while having profited from a half day of French in kindergarten and fifty minutes of French in grade one.

- French Comprehension Test (OISE)

The means obtained on the total test (28.25) and on each of the three test sections (13.25, 5.25, 9, 75) by the anglophone group are greater than those of the group of new arrivals but smaller than those of the bilingual group. These

means correspond closely to those reported for the total immersion students in Ontario who served as the standardization sample for the test (28.50, 13.53, 5.17, 9.80). It seems, then, that from the perspective of comprehension of spoken French, the anglophone subgroup is comparable to certain types of students in total immersion.

- Oral Language Measure (OLM)

With the exception of number of interventions in English (measure 8) where the order is reversed, the means of measures on the OLM may be placed in the following ascending order of success - new arrivals, anglophones, bilinguals. Given the language experience of these groups, this order is expected. Inspection of results across subgroups reveals that on the OLM as well as on the OISE the means for the anglophones are closer to those of bilinguals than they are to those of the new arrivals. The sole exception to this trend is grammatical quality where the mean of the anglophones is closer to that of the new arrivals. On enunciation, the mean of the anglophones (4.75) closely corresponds to that of the bilinguals (4.80). As regards the criteria for correction of this test, the anglophones express themselves with almost as much facility as the bilinguals despite the fact that they, on occasion, have recourse to English (8).

- Content Examination in Social Studies

There is a significant difference (.01) beween the mean for the French group (82.71) and that of the English group

(63.23). The percent correct for the total grade one (71.08) surpasses the sixty percent pass frequently regarded in elementary school as the point of division between success and failure. With respect to the subgroups, anglophone results are similar to those of the bilinguals and well above those of the new arrivals. The relative position of the subgroups to each other and vis a vis the French group brings into focus the relationship between success on a content examination and mastery of language of instruction and of testing. Correlations (see table 13) between results on comprehension, lexical quantity and grammatical quality are positive and above .50. The correlation is strongest between lexcial quantity and grammatical quality. The relatively low positive correlations between social studies and the three linguistic parameters point to the fact that, for certain children, limited French skills do not necessarily prevent the children from manifesting their knowledge of program content.

Pupils in the group of new arrivals have more frequent recourse to English during the content examination (see questions and answers, table 12) than do those in the other two groups. The number of interventions in English by the bilingual group can be attributed largely to the responses of one examinee.

- Verbal Interaction Analysis

Results of the verbal interaction analysis are presented in tables 14 and 15. Definitions of terms and breakdowns of

events and exchanges correspond to those at the kindergarten level. At grade one, however, observations took place only during the integrated Social Studies period and for only one session toward the end of the scholastic year.

Inspection of table 14 reveals that the group described as English dominant is responsible for twice as many verbal events as are the bilinguals (54:27). Breakdowns at levels 3 and 4 reveal that these verbal events take place predominantly in French by English dominants (43 French: 11 English) and by bilinguals (22 French: 5 English). About half the verbal events between pupils are in French for both English dominants and bilinguals (see level 4).

The breakdown in table 15 reveals that most of the exchanges which occurred with the teacher were primarily reactions to teacher-initiated statements. The fact that there was a preponderance of exchanges with English dominants is to be explained by teacher attempts to involve that group in a question-answer exchange.

Clearly the key to assessing a "French atmosphere" in a class is the extent to which spontaneous pupil-pupil exchanges are in French. Comparing figures for the same group of English dominant pupils in kindergarten (in 1979-1980 report) and in grade one (1981), one finds that the between-pupil conversations in French have increased by twenty-five percent.

4. SUMMARY AND CONCLUSIONS

The evaluation of the Bilingual Education Project during the 1980-1981 scholastic year has involved the assessment of two programs (at kindergarten and grade one) at a number of different levels. Appraisals of kindergarten program objectives, content and procedures have been made by two outside evaluators. Comments on whether intermediate objectives have been met and on the extent to which activities and materials are appropriate were sought from teachers involved in each program. Opinions on their perceptions of the operation of the program were solicited from the parents of children in the Bilingual Kindergarten. In addition, an assessment was made of pupil performance on a variety of tasks. This assessment involved pupils in the Bilingual Kindergarten and those pursuing an integrated Social Studies program in the first grade.

With respect to the program itself, comments received from the outside evaluators are generally favorable while at the same time identifying some aspects which required clarification or particular attention. Suggestions to further elaborate the interrelatedness of the various levels of objectives, to de-emphasize the prescriptive nature of the program and to emphasize the possibility of a flexible adaptation by the teacher can be easily incorporated in future revisions of the program.

Although the written assessment of the operation of the program at each level by the teachers was not received in

time to be included in this report, their observations in regard to the type and sequencing of modules and the usefulness of material were recorded during periodic meetings throughout the school year and will be taken into consideration in planning and implementing the program in 1981-1982.

The results of a questionnaire distributed to parents indicate a high level of satisfaction with the effects of the program. The request, on the part of some parents, for a more structured implementation of the French component and a more detailed exposition of program objectives at the onset of the school term will be honoured in the coming year.

The performance of kindergarten pupils on linguistic and communicative skills was generally satisfactory. On English language skills (primarily vocabulary) and on the fluency and quantity of oral communications, performance was at least equivalent to pupils participating in a regular English kindergarten. On French language skills comparisons with French speaking counterparts in the French kindergarten and English speaking counterparts in a French Reception kindergarten reveal some areas of equivalency and some where, as anticipated, the performance of the experimental class falls behind that of the other two groups. On control of linguistic features, for example on gender, all three groups achieve over eighty percent correct. On the other hand in Vocabulary and in the correct use of the object personal pronoun, the French kindergarten group is much superior to the other two groups. In the correct use of non-auxiliary verbs in the present, the

Bilingual group lags behind the two French groups. With respect to communication skills on a standardized comprehension test, the mean of pupils in the Bilingual kindergarten corresponded closely to that of the standardization sample of immersion pupils in Ontario, yet it was considerably below that of each of the two local comparison groups.

Given that the two French groups at the kindergarten level have had substantially more experience in French (one by virtue of the language being mother tongue; the other because of the French pre-kindergarten experience by some pupils) any comparisons on French measures will necessarily favor these two groups over the group in the Bilingual program. In order to move away from comparison and to highlight progress in the French language during the year, the focus in certain measures was placed solely on the Bilingual kindergarten. In addition to its more obvious function of measuring knowledge outcomes of intermediate program objectives, the content examination given at the beginning and end of the year, provided some interesting insights on language of communication. During the second testing session, pupils required substantially fewer interventions in English on the part of the examiners and answered less frequently in English than during the first testing session. In addition, on the end-of-year administration of a French oral language measure, very few English words were used in describing events depicted in a series of pictures. Finally, a classroom observation measure given in the first and again in the second half of

the year provided a sampling of the language of conversation during the French component of the kindergarten. Although French was the language used in teacher-pupil exchanges, English predominated in conversations among pupils in both the early and late observation periods. It may be that the children's exposure to English in the morning kindergarten creates a language set which inhibits communication in French among pupils in the afternoon. To explore this question of effect of milieu on language of exchange, arrangements have been made to observe a group of English speaking children participating in a half day immersion kindergarten. The opportunity to observe a group of English youngsters submersed in a regular French kindergarten (if such a group is currently available) could provide additional insights into this phenomenon. On a more practical level, it will be necessary for the French teacher to devise methods which will encourage pupils to speak French among themselves during class.

In grade one, a non statistical comparison of data is undertaken for three subroups (new arrivals to grade one, anglophones and bilinguals). Results on linguistic parameters of French comprehension and expression are in the expected direction with the class anglophones achieving results closer to the bilinguals than to the new arrivals who obtain the lowest means on all French language subtests. This trend is evident in the content examination as regards the number of interventions in English during an exam administered in French.

The group of new arrivals, in this case, achieve the highest mean score. When a statistical comparison is made on the content knowledge examination between the French grade one group and the total English grade on group, the former group achieves a higher result than the latter. Such a difference (assuming pupils of equivalent ability) may be attributed to one of a number of variables including instruction, language of instruction and language of testing. As regards the latter, it may be that unacceptable answers to questions presented in French are due to lack of comprehension rather than lack of content knowledge. If such is the case, all unacceptable answers by non francophones must be followed by a reformulation of the question in English which is the procedure followed when an English-speaking child cannot comprehend a question formulated in French.

In conclusion, it would seem that children at the kindergarten and grade one levels are making satisfactory progress in achieving the goals of the program. Although the authors are not yet prepared to pronounce themselves on the validity of the total program, they expect, in the coming year, to implement certain suggestions as regards the operation of the kindergarten program, to seek evaluations of the follow-up program in grade one and to pursue their research for improved evaluation procedures.

NOTES

1. We wish to thank the administration at the St-Croix School Commission, the principals, teachers, parents, pupils and research assistants who cooperated in the evaluation of the programs.

2. Programme expérimental d'enseignement bilingue à la Maternelle, soumis au directeur général, Direction générale du développement pédagogique, le février 1980.

3. Programme expérimental d'enseignement intégré des sciences humaines et du français langue seconde en première année. Préparé pour la Commission scolaire Sainte-Croix par M.F. Buteau et H. Gougeon, 1980.

4. Partie française du programme de Maternelle bilingue. St. Joseph of Mount Royal Elementary School. (première révision) Préparée pour La Commission scolaire Sainte-Croix, par M.F. Buteau et H. Gougeon, 1980.

5. Again this year, it was not possible to locate an equivalent immersion kindergarten class as a control.

6. Raven, J.C. Coloured Progressive Matrices. London, H.K. Lewis, 1962.

7. Dunn, Lloyd, M. Peabody Picture Vocabulary Test, Minn: American Guidance Services Inc., 1959.

8. The French version was administered to kindergarten pupils during the 1979-1980 testing session and revised prior to the current administration.

9. Barik Henri C. French Comprehension Test, Primer. Toronto: OISE, 1977.
..... French Comprehension Test, Grade One. Toronto; OISE, 1977.

10. Burt, H.K., H.C. Dulay, E. Hernandez, Bilingual Syntax Measure, N.Y.: Harcourt Brace Jovanovich, 1976.

11. Bautier-Castaing, Elisabeth, "Acquisition comparée de la syntaxe du français par des enfants francophones et non-fancophones," Etudes de Linguistique appliquée, Hommage à Pimsleur, 1977, 19-41.

12. Ten sets of materials and pedagogical activities based on the major themes or topics through which the objectives of the program are realized.

13. Flanders, N.A. Analysing Teacher Behavior, N.Y.: Addison-Wesley, 1970.

14. A pair of examiners observed each of ten pupils for a period of ten minutes. There was high inter-rater reliability (above 98%) as regards categorization of responses as teacher or pupil directed. Further categorization of responses as "initiation" or "reaction"was less reliable (approximately 80%) since among children it was difficult to determine whether comments were a reaction to the statement of another child or the initiation of a new topic of conversation. Designation of a verbalization as either English or French was very accurate (over 95%) but the recording of the precise statement (verbatim) was conflicting. Because of the background noises and the difficulty of differentiating the children's voices, a tape recording added little to an accurate representation of information. Consequently it was decided to drop any attempt to analyze spontaneous French speech and to retain only the aspects of the interaction that were reliable (80% and over).

TABLE 1

KINDERGARTEN TESTING SCHEDULE 1980-81

GROUP	BILINGUAL	RECEPTION	ENGLISH	FRENCH
TEST				
RAVEN	NOV.-DEC.	NOV.-DEC.	NOV.-DEC.	NOV.-DEC.
B.S.M. (E)	MARCH	MARCH	MARCH	
B.S.M. (F)	APR.-MAY	APR.-MAY		APR.-MAY
CONTENT (NOTIONS)	NOV.-JUNE			
FRENCH COMPREHENSION	MAY	MAY		
PEABODY (Eng.)	MARCH	MARCH	MARCH	
PEABODY (Fr.)	APR.-MAY	APR.-MAY		APR.-MAY
O.L.M. (Fr.)	MARCH	MARCH	MARCH	
O.L.M. (Engl.)	APR.-MAY	APR.-MAY		MARCH-APR.
VERBAL INTERACTION	OCT.-MAY			
RANKING (CLASSROOM PERFORMANCE)	JUNE			

TABLE 2

GRADE ONE TESTING SCHEDULE 1980-81

PROGRAM	BILINGUAL	FRENCH
TEST		
CONTENT (NOTIONS)	MAY	MAY
FRENCH COMPREHENSION	MAY	
PEABODY (Eng.)	MAY	
ORAL LANGUAGE MEAS (Fr.)	MAY	
VERBAL INTERACTION	APRIL	
RANKING (CLASSROOM PERFORMANCE)	JUNE	

TABLE 3

OBSERVATION SEQUENCE FOR VERBAL BEHAVIOR OF 8 PUPILS (A TO H) FOR 16 TEN-MINUTE BLOCKS BY TWO OBSERVERS (X AND Y)

OBSERVERS	OBSERVATION BLOCKS	
	MORNING	AFTERNOON
	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8
X	A B E F C D G H.	C D G H A B E F
Y	C D G H A B E F	A B E F C D G H

TABLE 4

SUMMARY OF RESPONSES TO QUESTIONS 1-7 (incl) OF BILINGUAL KINDERGARTEN PROGRAM QUESTIONNAIRE TO PARENTS

1. Would you have sent your child to St. Joseph school
   a. if only a one-half day English language kindergarten had been available? Yes 9 No 4
   b. if only a one-half day French language kindergarten had been available? Yes 4 No 5
   c. if a full day English language kindergarten had been available? Yes 10 No 4
   d. if a full day French language kindergarten had been available? Yes 4 No 5

2. To what extent do you think your child enjoyed the French component (afternoon session) of the program? (check one)

Enjoyed very much	9
Enjoyed moderately	5
Enjoyed very little	0

3. To what extent do you think your child benefited (learned something new) from the French component (afternoon session) of the program? (check one)

Benefited very much	9
Benefited moderately	4
Benefited very little	1

4. Would you have preferred for your child a French kindergarten experience that was (check one)

- more structured than the one this year?	5
- less structured than the one this year?	1
- about as structured as the one this year?	8

5. Do you think that, by attending the afternoon session, your child learned (check one)

- more French than you expected?	4
- less French than you expected?	2
- about the same amount as expected?	7
- question not appropriate since you attribute your child's knowledge of French to factors outside the class	1

6. Has your child manifested <u>understanding</u> of French when you have been with him/her? (check one)

- on a number of occasions	9
- on a few occasions	2
- rarely	2
- never	0

7. Has your child attempted to <u>speak</u> French outside the class?

- on a number of occasions	5
- on a few occasions	4
- rarely	2
- never	0
- question not appropriate since your child is fluent in French	3

TABLE 5

ANALYSIS OF COVARIANCE ON STANDARDIZED LANGUAGE TESTS AT THE KINDERGARTEN LEVEL

GROUPS:	B.K.			F.K.			R.K.			E.K.			Sig. Lev.	Sig. Lev.	Sig. Lev
VARIABLES	UNADJ $\bar{X}$	(SD)	ADJ $\bar{X}$	UNADJ $\bar{X}$	(SD)	ADJ $\bar{X}$	UNADJ $\bar{X}$	(SD)	ADJ $\bar{X}$	UNADJ $\bar{X}$	(SD)	ADJ $\bar{X}$	BKvsFK	BKvsRK	BKvsEK
N	15			15			10			13					
A&S	64.87	(3.62)		64.20	(2.83)		68.40	(4.44)		64.92	(4.03)		n.s.	n.s.	n.s.
RAVEN	17.40	(4.26)		16.60	(2.38)		16.70	(5.93)		18.00	(2.45)		n.s.	n.s.	n.s.
PEABODY ENG.	55.27	(8.88)	55.57							53.50	(10.19)	53.12			n.s.
PEABODY FR.	42.87	(19.47)	42.84	68.47	(14.77)	68.49	48.90	(18.34)	48.91				.0003	n.s.	
OISE TOTAL (45 Max.)	27.07	(8.41)	27.03				39.90	(2.88)	39.96					.0001	
OISE 1 (25 Max.)	16.93	(5.15)	16.93				22.60	(1.17)	22.60					.0031	
OISE 2 (10 Max.)	5.87	(2.20)	5.86				8.90	(.99)	8.91					.0006	
OISE 3 (10 Max.)	4.27	(2.25)	4.24				8.40	(1.64)	8.45					.0001	
BSM Eng.	4.20	(.56)	4.20				4.40	(.52)	4.40	4.33	(.65)	4.33		n.s.	n.s.
*ESB (max. 34) (TNOF Acc. Ans.)	9.00	(5.62)	8.99	25.00	(6.08)	25.04	14.90	(5.34)	14.91				.0001	.01	

*ESB = Echelle de syntaxe bilingue = BSM (French)

TABLE 6

ANALYSIS OF COVARIANCE ON NON-STANDARDIZED LANGUAGE TESTS AT THE KINDERGARTEN LEVEL

GROUPS:	B.K.			F.K.			R.K.			E.K.			Sig. Lev.	Sig. Lev.	Sig. Lev.
VARIABLES	UNADV. $\bar{X}$	(SD)	ADV. $\bar{X}$	UNADV. $\bar{X}$	(SD)	ADV. $\bar{X}$	UNADV. $\bar{X}$	(SD)	ADV. $\bar{X}$	UNADV. $\bar{X}$	(SD)	ADV. $\bar{X}$	BKvsFK	BKvsRK	BKvsEK
BSB															
-INC Gender	6.93	(5.68)	6.97	9.33	(3.66)	9.34	10.10	(4.15)	10.10				n.s.	n.s.	
-% SU *	80.86	(28.54)	81.08	95.60	(12.93)	95.41	85.10	(17.08)	85.07						
-INC ETRE	4.64	(3.75)	4.64	7.13	(3.18)	7.14	7.10	(2.08)	7.10				n.s.	n.s.	
-% SU *	65.36	(39.73)	65.43	94.40	(6.30)	94.33	77.30	(20.30)	77.29						
-INC P. MAV.	6.86	(5.39)	6.88	10.26	(3.73)	10.24	11.70	(4.06)	11.70				.05	.01	
-% SU *	61.00	(38.37)	60.86	87.07	(18.10)	87.18	86.00	(10.67)	86.02						
-INC ADV.	3.57	(2.38)	3.58	6.27	(2.99)	6.26	7.00	(2.67)	7.00				.0122	.0047	
-% SU *	45.43	(39.98)	45.39	85.60	(10.36)	85.63	53.80	(15.19)	53.80						
-INC OBJ. P.P.	5.14	(3.53)	5.16	6.80	(2.93)	6.78	5.40	(2.50)	5.40				n.s.	n.s.	
-% SU *	57.93	(39.17)	57.95	90.20	(16.13)	90.18	54.20	(26.09)	54.20						
* OLI (FR.)															
-GEN. COMP (0-5)	3.33	(1.29)	3.33	3.60	(1.12)	3.61	3.78	(1.20)	3.78				n.s.	n.s.	
-Lexical Q. (0-5)	3.27	(1.62)	3.27	4.33	(1.17)	4.35	3.56	(1.33)	3.56				n.s.	n.s.	
-Gramm. Q. (0-5)	2.87	(1.41)	2.87	4.60	(.51)	4.60	3.22	(.97)	3.22				n.s.	n.s.	
-Discour. Q (0-5)	2.80	(1.32)	2.80	2.93	(1.16)	2.94	3.33	(1.58)	3.34				n.s.	n.s.	
-Phonc. Q. (0-5)	2.93	(1.71)	2.93	3.07	(1.53)	3.08	3.22	(1.48)	3.22				n.s.	n.s.	
-Pers. Exp. (0-3)	2.07	(1.16)	2.07	2.07	(.88)	2.07	2.44	(1.01)	2.44				n.s.	n.s.	
-Lex. Quantity	29.80	(21.45)	29.70	54.07	(31.64)	54.07	59.56	(47.92)	59.73				.05	.04	
-Eng. MDS (N)	3.73	(8.39)	3.74	0.00	(0.00)	0.00	.44	(.88)	.43				n.s.	n.s.	
OLM (ENG.)															
-Gen. Comp. (0-5)	2.87	(1.77)	2.87				2.50	(1.08)	2.48	2.33	(1.61)	2.35		n.s.	n.s.
-Lex. Qual. (0-5)	2.80	(1.01)	2.80				3.30	(1.07)	3.30	2.25	(4.76)	2.25		n.s.	n.s.
-Lang. Prof. (0-5)	3.07	(1.16)	3.07				2.80	(1.70)	2.79	2.00	(1.65)	2.01		n.s.	n.s.
-Pers. Exp. (0-3)	1.73	(.70)	1.73				1.00	(1.05)	.98	1.33	(1.15)	1.36		n.s.	n.s.
-Lex.Quantity	53.13	(37.61)	53.16				32.80	(24.01)	33.15	33.75	(25.21)	33.43		n.s.	n.s.

*Oral Language Measure

TABLE 7

PRETEST - POST TEST DIFFERENCES ON CONTENT SUBSCORES FOR BILINGUAL KINDERGARTEN

	Pretest		Post test		t	Pr > t
CONTENT EXAM	Mean	SD	Mean	SD		
No. of Cor. Ans. (69 max.)	42.87	9.81	41.73	9.56	.39	.70
Percent Correct	61.47	14.53	59.87	13.64	.37	.72
No. Eng. Ques.	10.67	7.75	5.67	5.61	3.50	.004
No. Eng. Ans.	12.13	8.99	4.67	4.27	4.03	.001
No. Unans. Ques.	1.80	1.61	3.13	2.23	-1.80	.093

TABLE 8

BREAKDOWN OF PUPIL VERBAL EVENTS BY KINDERGARTEN PROGRAM (ENGLISH, FRENCH) BY LINGUISTIC GROUP (ENGLISH DOMINANT, BILINGUAL) BY LANGUAGE SPOKEN DURING CLASS (ENGLISH, FRENCH) AND BY PERSONAL REFERENCE (TO TEACHER TO PUPILS)

LEVEL	SESSION 1															
1	VERBAL EVENTS															
	147															
2	Eng K (A.M.)								French K (P.M.)							
	65								82							
3	by English dominants				by Bilinguals				by English dominants				by Bilinguals			
	36				29				47				35			
4	in Eng.		in Fr.		in Eng.		in Fr.		in Eng.		in Fr.		in Eng.		in Fr.	
	36		0		29		0		40		7		19		16	
5	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
	12	24	0	0	1	28	0	0	2	38	7	0	3	16	14	2

TABLE 9

BREAKDOWN OF PUPIL VERBAL EVENTS IN KINDERGARTEN BY PROGRAM (ENGLISH, FRENCH) BY LINGUISTIC GROUP (ENGLISH DOMINANT, BILINGUAL) BY LANGUAGE SPOKEN DURING CLASS (ENGLISH, FRENCH), AND BY PERSONAL REFERENCE (TO TEACHER, TO PUPILS).

LEVEL																
1	SESSION 2															
	VERBAL EVENTS															
	227															
2	Eng. K. (A.M.)								Fr. K. (P.M.)							
	122								105							
3	by English dominants				by bilinguals				by English dominants				by bilinguals			
	63				59				60				45			
4	in Eng.		in Fr.		in Eng.		in Fr.		in Eng.		in Fr.		in Eng.		in Fr.	
	63		0		59		0		46		14		17		28	
5	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
	8	55	0	0	12	47	0	0	1	45	13	1	0	17	26	2

TABLE 10

BREAKDOWN OF PUPIL VERBAL EXCHANGES WITH TEACHERS AND PUPILS BY LINGUISTIC GROUP (ENGLISH DOMINANT, BILINGUAL), BY KINDERGARTEN PROGRAM (ENGLISH, FRENCH) BY TYPE OF VERBAL INTERACTION (RESPONDING (R) OR INITIATING (I) CONVERSATION)

LEVEL																
1	SESSION 1															
	EXCHANGES															
	147															
2	with Teachers								with Pupils							
	39								108							
3	by Eng. Dom.				by Bilingual				by Eng. Dom.				by Bilingual			
	21				18				62				46			
4	Eng. K		Fr. K		Eng. K		Fr. K		Eng. K		Fr. K		Eng. K		Fr. K	
	12		9		1		17		24		38		28		18	
5	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I
	8	4	7	2	1	0	15	2	17	7	10	28	18	10	7	11

TABLE 11

BREAKDOWN OF PUPIL VERBAL EXCHANGES WITH TEACHERS AND PUPILS BY LINGUISTIC GROUP (ENGLISH DOMINANT, BILINGUAL), BY KINDERGARTEN PROGRAM (ENGLISH, FRENCH) BY TYPE OF VERBAL INTERACTION (RESPONDING (R) OR INITIATING (I) CONVERSATION)

LEVEL	SESSION 2															
1	EXCHANGES															
	227															
2	with teachers								with pupils							
	60								167							
3	by Eng. Dom.				by Bilingual				by Eng. Dom.				by Bilingual			
	22				38				101				66			
4	Eng. K.		Fr. K.		Eng. K.		Fr. K.		Eng. K.		Fr. K.		Eng. K.		Fr. K.	
	8		14		12		26		55		46		47		19	
5	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I
	5	3	13	1	7	5	23	3	20	35	24	22	23	24	11	8

TABLE 12

OBTAINED MEANS IN GRADE ONE ON LANGUAGE TESTS AND SOCIAL STUDIES CONTENT EXMINATION BY PROGRAM AND PUPIL LANGUAGE EXPERIENCE CHARACTERISTICS

	English Grade 1 Subgroup 1		English Grade 1 subgroup 2		Subgroup 3		Total Group		French Grade 1 Total Group		
	4		4		5		13		14		
Age	77.25		74.25		79.00		77.00		77.36		n.s.
Peabody	56.00	(41-59)	57.77	(46-64)	48.80	(43-59)	53.77	(41-64)			
Compr. (OISE)											
-Sect. 1 (22 max.)	8.25	(7-12)	13.25	(9-18)	17.00	(13-20)	13.15	(7-20)			
" 2 (9 ")	3.00	(1-6)	5.25	(4-8)	7.60	(5-9)	5.46	(1-9)			
" 3 (14 ")	6.00	(3-9)	9.75	(9-11)	12.00	(10-13)	9.46	(3-13)			
Total 45 ")	17.25	(11-25)	28.25	(23-37)	36.60	(28-42)	28.08	(11-42)			
*OLM (FR.)											
-Gen. Comp. (0-5)	2.50	(1-4)	4.75	(4-5)	5.00	(5-5)	4.15	(1-5)			
-Lexical Q. "	1.50	(1-2)	3.50	(3-4)	4.00	(3-5)	3.08	(1-5)			
-Gramm Q. "	2.25	(2-3)	3.25	(2-4)	4.40	(4-5)	3.38	(2.5)			
-Discur. Q "	1.00	(0-2)	3.00	(1-4)	3.60	(2-4)	2.61	(0-4)			
-Phon. Q. "	2.25	(1-3)	4.75	(4-5)	4.80	(4-5)	4.00	(1-5)			
-Pers. Exp. (0-3)	0.50	(0-1)	1.75	(1-2)	1.80	(1-3)	1.30	(0-3)			
-Lex. Quantity	31.00	(15-48)	61.50	(53-70)	76.20	(63-100)	57.77	(15-100)			
-Eng. MDS. (M)	3.00	(0-5)	2.50	(0-8)	0.20	(0-1)	1.76	(0-8)			
CONTENT (SOC. ST.)											
-No corr. ans (89 max.)	51.00	(24-62)	68.25	(61-76)	69.00	(55-79)	63.23	(24-79	82.71	(79-85)	0.003
-Percent correct	57.25	(27-70)	76.75	(71-85)	77.60	(62-89)	71.08	(27-89)	92.86	(89-97)	0.003
-No. Eng. Ques.	4.00	(1-9)	0.25	(0-1)	0.80	(0-2)	1.62	(1-9)	0.00		.04
-No. Eng. Ans.	8.25	(5-15)	2.25	(0-3)	2.00	(0-6)	4.00	(0-15)	0.00		.005
-No. Unans. Ques.	2.00	(0-5)	0.25	(0-1)	0.60	(0-2)	0.92	(0-5)	0.00		.052

* Oral Language Measure

TABLE 13

CORRELATION COEFFICIENTS FOR SOME ENGLISH GRADE ONE RESULTS

	1. Comprehension	2. Lexical Quantity	3. Gramm. Quality	4. Social Studies
1. Oral Comprehension (OISE total score)	1.00			
2. Lexical Quantity (Oral Language Measure)	.63(.02)*	1.00		
3. Grammatical Quality (" ")	.64(.02)	.92(.00)	1.00	
4. Social Studies content (Total score)	.44(.14)	.46(.11)	.33(.27)	1.00

* Level of confidence

TABLE 14

BREAKDOWN OF PUPIL VERBAL EVENTS IN GRADE ONE, SOCIAL STUDIES BY LINGUISTIC GROUP (ENGLISH DOMINANT, BILINGUAL) BY LANGUAGE SPOKEN DURING CLASS (ENGLISN, FRENCH) AND PERSONAL REFERENCE (TO TEACHER, TO PUPILS)

LEVEL								
1	VERBAL EVENTS							
	81							
2	by English Dominant				by Bilinguals			
	54				27			
3	in English		in French		in English		in French	
	11		43		5		22	
4	T	P	T	P	T	P	T	P
	4	7	36	7	1	4	17	5

TABLE 15

BREAKDOWN OF PUPIL EXCHANGES IN GRADE 1 SOCIAL STUDIES, WITH TEACHERS AND PUPILS BY LINGUISTIC GROUP (ENGLISH DOMINANT, BILINGUAL) AND BY TYPE OF VERBAL INTERACTION REGARDING (R) OR INITIATING (I) CONVERSATION)

LEVEL								
1	EXCHANGES							
	81							
2	with teachers				with pupils			
	58				23			
3	by Eng. Dom.		by Bilinguals		by Eng. Dom.		by Bilinguals	
	40		18		14		9	
4	R	I	R	I	R	I	R	I
	33	7	12	6	2	12	4	5

APPENDIX A

DISTRIBUTION OF DUTIES IN THE IMPLEMENTATION OF THE FRENCH COMPONENT OF THE PROGRAMS - KINDERGARTEN AND GRADE ONE

Function	Target Group	Activity	Extent of Involvement	Expexted Progress
Teachers	Students	-Teaching -Animation	One half-day of duration of scholastic year (K) Fifty minutes per day (Grade 1)	To implement minimal objectives of program
Student-Teacher	Students	-Teaching under supervision of teacher	Periods specified in student teacher's program	To implement selected objectives of program
Principal	Teacher Parents	-Administrative supervision of class -Liaison with parents -Information	As required by pupils, teacher, parents	To meet the needs of those involved
Program Consultants	Teacher Student-Teacher	-Observation -Direction in the interpretation of the program and modules	Periodic meetings	To resolve problems related to program. To acquire feedback for program revision
Pedagogical Counsellor	Teacher Principal Consultants Administrator Parents	-Information -Coordination -Pedagogical Supervision	Meetings and other forms of communication (telephone, letter)	To effect a productive collaboration
Administrator	Principal Consultants Pedagogical Counsellor	-Management of budget and materials	Periodic meetings	To assure efficient and satisfactory deployment of resources.

LA COMMISSION SCOLAIRE
sainte-croix

APPENDIX B

ST. JOSEPH SCHOOL
EXPERIMENTAL BILINGUAL KINDERGARTEN PROGRAM

Permission is granted for my child _____

to participate in the evaluation of the

experimental Bilingual Kindergarten Program

described in the attached letter.

_____ _____

Date Signature of parent
or guardian.

CENTRE ADMINISTRATIF, 1100 CÔTE VERTU, SAINT-LAURENT, H4L 4V1 — TÉLÉPHONE 748-6201

LA COMMISSION SCOLAIRE
sainte-croix

APPENDIX B

ST. JOSEPH SCHOOL
EXPERIMENTAL BILINGUAL KINDERGARTEN PROGRAM
- -

To: The parents or guardians of students enrolled in kindergarten at _____

From: The representatives of the Commission scolaire Sainte-Croix:

Mr. Bernard Champagne; Director of English schools.

Mrs.G.Nadeau-Mitchell; Second Language Consultant.

The team of evaluators from McGill Faculty of Education ; M.F. Buteau and H. Gougeon.

A new full-day bilingual kindergarten program is being experimented with in Saint-Joseph of Mount Royal Elementary School with the cooperation of professors from McGill University. It maintains the regular English kindergarten curriculum while providing the additional benefits of a half-day of instruction through French.

For purposes of assessing the effects of this program on the children and of investigating another alternative to existing French instructional programs, a series of tests related to language development must be administered. In order to make comparisons on the language performce between children at Saint-Joseph School and those following other types of kindergarten programs, we will need the cooperation of pupils in other schools. The results of the study would be of interest to the parents of these children as well as to those whose children are participating in the new program.

Testing sessions will take place in December or January and again in May or June and will last about an hour. They will be conducted by trained assistants who are fluent in French and in English and who have experience in dealing with children. Judging from our past experience we believe that the children will find the testing sessions interesting and a pleasant learning experience. As some of the tests assess oral expression, a part of the inverview will be tape-recorded for subsequent analysis.

CENTRE ADMINISTRATIF, 1100 CÔTE VERTU, SAINT-LAURENT, H4L 4V1 -- TÉLÉPHONE 748-6991

At the time of transcription pupils' names will be replaced by numbers and the code will be destroyed at the end of the study. The identity of individual pupils will not be revealed and information about the performance of individual students will be confidential. The report of the results of the pilot study will be made available to the parents of all participating children.

We count on your cooperation and would very much appreciate your permission to have your child participate in the evaluation. Please signify your consent to your child's participation in the testing sessions by signing the attached slip and having your child return it to the teacher.

Should you have any questions about the program or the evaluation procedure please contact

Mrs. Geraldine Nadeau-Mitchell
Consultant Second Languages
Commission scolaire Sainte-Croix

at; 748-6991

APPENDIX C

INFORMATION FORM

School: Level: Kindergarten

Name:

Sex:

Home address:

Phone:

Date of birth:

Place of birth:

Language (s) spoken at home:

Mother's occupation:

Father's occupation:

(If possible)

Experience in:

	Length	Language
Daycare:		
Nursery School:		
Other:		

Siblings: (e.g. number, age, sex)

APPENDIX D

LA MATERNELLE

Opinionnaire

Pour nous aider à réviser et à améliorer constamment le programme dont nous faisons l'évaluation, auriez-vous l'obligeance de remplir avec le plus de précision possible le questionnaire suivant au sujet de la partie française du programme de maternelle bilingue.
Nous vous remercions d'avance de votre précieuse collaboration.

Première partie

Veuillez indiquer, par un x placé dans la colonne appropriée, dans quelle mesure vous partagez les opinions exprimées ci-dessous au sujet du programme expérimental que vous enseignez.

Code: 0 - Pas du tout d'accord
1 - J'ai de fortes réserves
2 - J'ai quelques réserves
3 - Je suis généralement d'accord
4 - Je suis complètement d'accord

	0	1	2	3	4
1. Les enfants s'intéressent beaucoup au thème des animaux.					
2. Le premier thème est trop facile.....					
3. Le thème de l'alimentation pourrait s'enseigner avant Noël.....					
4. Le thème des transports s'enseigne mieux que celui des vêtements.....					
5. Le matériel didactique disponible est satisfaisant pour le thème des changements climatiques.....					
6. L'imprécision des objectifs linguistiques permet beaucoup de flexibilité à l'enseignante.....					
7. Le programme français recouvre les connaissances vues en maternelle anglaise.....					
8. Les enfants apprennent davantage dans les activités libres que dans des activités structurées.....					
9. Le programme permet aux enfants d'utiliser des objets et du matériel qu'ils apportent de chez eux.....					

Deuxième partie

Questions ouvertes

1. Quel est le thème le plus facile à enseigner?

   Pourquoi?

2. Quel est le thème qui requiert le plus de temps?

   Pourquoi?

3. Quel est le thème qui demande le plus de préparation?

   Pourquoi?

APPENDIX D

Deuxième partie (suite)

Questions ouvertes

4. A peu près quel pourcentage du temps est consacré à l'enseignement structuré du programme?

   Quelques commentaires d'explication:

5. Pouvez-vous suggérer des modifications qui pourraient être apportées au programme et au régime pédagogique et qui amèneraient les enfants à apprendre le français davantage?

6. Comme il s'agit d'un programme expérimental nous savons que ce programme, pour être productif, exige de la préparation et de la planification de la part de l'enseignante. Voudriez-vous nous décrire le genre de préparation quotidienne ou hebdomadaire que vous a imposé ce programme.

7. Quels sont les exercices qui à votre avis ont été les plus profitables aux enfants du point de vue de l'apprentissage du français?

8. Quel est le matériel didactique dont vous disposiez qui semble avoir été le plus utile dans votre enseignement du programme?

9. Quel matériel supplémentaire devrait être acheté l'an prochain pour faciliter la tâche de l'enseignante et surtout pour soutenir et motiver les enfants dans leur apprentissage du français?

10. Quelles sont les acquisitions les plus marquantes que vous avez pu constater chez la plupart des élèves de janvier à juin selon les aspects suivants de l'apprentissage du français?

    Prononciation:

    Vocabulaire:

    Grammaire:

    Expression:

    Compréhension:

11. Quels commentaires et quelles suggestions pouvez-vous formuler, selon les éléments énumérés ci-dessous, pour aider les autorités, les parents, les enfants, les assistantes de recherche et nous-mêmes à améliorer le programme pour que les enfants profitent au maximum du programme expérimental:

    Méthodologie:

    Horaire:

    Matériel didactique:

    Activités:

    Testing:

    Autres:

APPENDIX D

QUESTIONNAIRE

Les sciences humaines intégrées à l'enseignement du français langue seconde

Première année

Pour nous aider à améliorer constamment le programme dont nous faisons l'évaluation, auriez-vous l'obligeance de remplir le questionnaire suivant.
Nous vous remercions d'avance de votre précieuse collaboration.

I. Comment l'orientation générale du programme pourrait-elle être explicitée, s'il y a lieu?

II. Qu'est-ce que vous pensez, du point de vue de leur réalisme, difficulté, intérêt, utilité, de chacun des objectifs terminaux,

A. Sur le plan cognitif et éducatif?

1.

2.

3.

B. Sur le plan langagier?

1.

2.

3.

4.

5.

6.

7.

8.

III. Pouvez-vous résumer les difficultés que pose l'objectif d'amener, tout en ne parlant que français, les élèves à identifier certains traits de leur milieu physique et social.

IV. Quels sont les exercices qui, à votre avis, ont été les plus profitables aux enfants du point de vue de l'apprentissage du français?

V. Quel est le matériel didactique dont vous disposiez qui semble avoir été le plus utile dans votre enseignement du programme?

VI. Quel matériel didactique supplémentaire devrait être acheté l'an prochain pour faciliter la tâche de l'enseignante et surtout pour soutenir et motiver les enfants dans leur apprentissage du français?

VII. Quelles activités d'apprentissage semblent convenir le mieux à la catégorie d'élèves que vous avez connus en première année?

VIII. Quelles sont les acquisitions les plus marquantes que vous avez pu constater chez la plupart des élèves, de janvier à juin, selon les aspects suivants de l'apprentissage du français?

Prononciation:

Facilité:

Vocabulaire:

Grammaire:

Expression:

Compréhension:

IX. Quels commentaires et quelles suggestions pouvez-vous formuler pour aider les autorités, les parents, les enfants, les assistantes de recherche et nous-mêmes à améliorer le programme pour que les enfants profitent au maximum du programme expérimental?

X. De toutes les connaissances qui sont proposées comme objectifs du programme, quelles sont celles qui, à votre avis,

A. étaient déjà acquises par la plupart des élèves?

B. ont été acquises par la plupart des élèves à la suite de votre enseignement?

McGill University
Faculty of Education

June 26, 1981

Dear Parents:

This is the second year that the Bilingual Kindergarten program has been offered at St. Joseph Elementary School and the second year of its evaluation.

To help assess the effect of the program so that changes and improvements may be implemented in the coming year, we would appreciate your opinion regarding the French component (afternoon session) of the Kindergarten. Needless to say individual questionnaires will be kept confidential. We hope that you will take a few minutes to complete the attached questionnaire and to return it before July 31, 1981,using the enclosed self-addressed envelope.

We thank you for your cooperation, wish you a pleasant summer and look forward to seeing your youngster next year in Grade One.

Cordially yours,

Magdelhayne F. Buteau
Helen Gougeon

/lt

Postal address: 3700 McTavish Street, Montreal, PQ, Canada H3A 1Y2

SAINT JOSEPH ELEMENTARY SCHOOL
SAINTE-CROIX SCHOOL COMMISSION

QUESTIONNAIRE

addressed to the parents whose children
have attended the Bilingual Kindergarten Class in 1980-81

Please fill in and return this questionnaire before July 31, 1981 to

Professors M. Buteau and H. Gougeon
McGill Faculty of Education
3700 McTavish Street
Montréal H3A 1Y2

1. Would you have sent your child to St. Joseph school

   a. if only a one-half day English language kindergarten had been available — Yes ___ No ___

   b. if only a one-half day French language kindergarten had been available — Yes ___ No ___

   c. if a full day English language kindergarten had been available — Yes ___ No ___

   d. if a full day French language kindergarten had been available — Yes ___ No ___

2. To what extent do you think your child enjoyed the French component (afternoon session) of the program? (check one)

   Enjoyed very much ___
   Enjoyed moderately ___
   Enjoyed very little ___

3. To what extent do you think your child benefited (learned something new) from the French component (afternoon session) of the program? (check one)

   Benefited very much ___
   Benefited moderately ___
   Benefited very little ___

4. Would you have preferred for your child a French kindergarten experience that was (check one)

   - more structured than the one this year ___
   - less structured than the one this year ___
   - about as structured as the one this year ___

5. Do you think that, by attending the afternoon session your child learned (check one)

   - more French than you expected ___
   - less French than you expected ___
   - about the same amount as expected ___
   - question not appropriate since you attribute your child's knowledge of French to factors outside the class ___

6. Has your child manifested <u>understanding</u> of French when you have been with him/her? (check one)

   - on a number of occasions ___
   - on a few occasions ___
   - rarely ___
   - never ___

7. Has your child attempted to **speak** French outside of class? (check one)

- on a number of occasions ___
- on a few occasions ___
- rarely ___
- never ___
- question not appropriate since your child is fluent in French ___

8. Which activities or practices in the French component of the kindergarten program do you believe are particularly beneficial and hence should be retained. (Please elaborate below)

_____

_____

_____

_____

_____

_____

9. Which activities or practices (if any) in the French component of the kindergarten would you like to see eliminated or improved (Please elaborate below)

_____

_____

_____

_____

_____

_____

10. Would you recommend the St. Joseph Kindergarten Program to others? Yes ___ No ___

Additional comments and/or suggestions:

Signature _____
(optional)

APPENDIX F

SOCIAL AND VERBAL INTERACTION

Name:_____ School:_____ Date & Hour:_____ Duration of Obs._____

Learning Activity:_____ Examiner_____

Reaction	To Teacher (in response to personal contact)	
	(in response to group contact	
	To Pupils (name pupils)	
Initiation	Toward Teacher	
	Toward Pupils	
Monologue		